

What is claimed is:

1. A method of reducing inflammation of an ocular tissue comprising contacting said tissue with a composition comprising a carotenoid and a polyphenol.
- 5 2. The method of claim 1, wherein said composition further comprises a glutathione precursor.
3. The method of claim 1, wherein said composition further comprises a vitamin  
10 anti-oxidant.
4. The method of claim 1, wherein said composition further comprises an alpha lipoic acid.
- 15 5. The method of claim 1, further comprising contacting said tissue with an omega-3 fatty acid.
6. The method of claim 1, further comprising contacting said tissue with an omega-6  
20 fatty acid.
7. The method of claim 5, wherein said omega-3 fatty acid is selected from the group consisting of eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA), and alpha linolenic acid (ALA).
- 25 8. The method of claim 1, wherein said carotenoid is a mixed carotenoid compound, a purified astaxanthin, or a purified zeaxanthin.
9. The method of claim 1, wherein said polyphenol is curcuma longa root powder, green tea, grape seed extract, a cinnamon flavonoid, or a citrus bioflavonoid.
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10. The method of claim 1, wherein said polyphenol is a cox-2 inhibitor.

11. The method of claim 10, wherein said cox-2 inhibitor is a quercetin, a bilberry extract, a hops PE, blueberry powder or tart cherry powder.

12. The method of claim 2, wherein said glutathione precursor is taurine or N-acetyl-L-cysteine.

13. The method of claim 3, wherein said vitamin anti-oxidant is Vitamin A, Vitamin B, Vitamin C, Vitamin D or Vitamin E.

14. The method of claim 1, wherein said composition further comprises a trace mineral.

15. The method of claim 1, wherein said composition further comprises L-carnitine.

16. The method of claim 1, wherein said ocular tissue is sclera tissue, iris tissue, cornea tissue, pupil tissue, lens tissue, conjunctiva tissue, vitreous tissue, choroids tissue, macula tissue or retina tissue

17. A method of alleviating a symptom of dry eye or macular degeneration, comprising administering to a subject suffering from or at risk of developing dry eye or macular degeneration a composition comprising a carotinoid and a polyphenol.

18. The method of claim 17, wherein said composition further comprises a glutathione precursor.

19. The method of claim 17, wherein said composition further comprises a vitamin anti-oxidant.

20. The method of claim 17, wherein said composition further comprises an alpha lipoic acid.
21. The method of claim 17, further administering said subject an omega-3 fatty acid.
22. The method of claim 21, wherein said omega-3 fatty acid is selected from the group comprising EPA, DHA, and ALA.
23. The method of claim 17, wherein said composition further comprises an omega-6 fatty acid.
24. The method of claim 17, wherein said carotenoid is a mixed carotenoid compound, a purified astaxanthin or a purified zeaxanthin.
25. The method of claim 17, wherein said polyphenol is curcuma longa root powder, green tea, grape seed extract, cinnamon flavonoid, or a citrus bioflavonoid.
26. The method of claim 17, wherein said polyphenol is a cox-2 inhibitor.
27. The method of claim 26, wherein said cox-2 inhibitor is a quercetin, a bilberry extract, a hops PE, blueberry powder or tart cherry powder.
28. The method of claim 18, wherein said glutathione precursor is taurine or N-acetyl-L-cysteine.
29. The method of claim 19, wherein said vitamin anti-oxidant Vitamin A, Vitamin B, Vitamin C, Vitamin D or Vitamin E.
30. The method of claim 17, wherein said composition further comprises a trace mineral.

31. The method of claim 17, wherein said composition is administered systemically.
32. The method of claim 17, wherein said composition is administered locally.
- 5 33. The method of claim 32, wherein said composition is administered by directly contacting an ocular tissue.
34. The method of claim 17, further comprising contacting said tissue with L-carnitine.
- 10 35. A composition comprising a carotenoid and a polyphenol, wherein said carotenoid and said polyphenol are present in amounts to produce a synergistic anti-inflammatory effect.
- 15 36. The composition of claim 35, wherein said composition further comprises a glutathione precursor.
37. The composition of claim 35, wherein said composition further comprises a
- 20 vitamin anti-oxidant.
38. The composition of claim 35, wherein said composition further comprises an alpha lipoic acid.
- 25 39. The composition of claim 35, wherein said carotenoid is a mixed carotenoid compound, a purified astaxanthin or a purified zeaxanthin.
40. The composition of claim 35, wherein said polyphenol is curcuma longa root powder, green tea, grape seed extract, cinnamon flavonoid, or a citrus bioflavonoid.
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41. The composition of claim 35, wherein said polyphenol is a cox-2 inhibitor.
42. The composition of claim 41, wherein said cox-2 inhibitor is a quercetin, a bilberry extract, a hops PE, blueberry powder or tart cherry powder.
- 5 43. The composition of claim 36, wherein said glutathione precursor is taurine or N-acetyl-L-cysteine.
44. The composition of claim 37, wherein said vitamin anti-oxidant is Vitamin A,  
10 Vitamin B, Vitamin C, Vitamin D or Vitamin E.
45. The composition of claim 35, wherein said composition further comprises a trace minerals.
- 15 46. The composition of claim 35, wherein said composition further comprises L-carnitine.